



Science

To experience, observe and explore the world around us.

Within the Science, at Oaks, children are encouraged to be curious and to ask questions about what they notice. They are helped to develop their understanding of scientific ideas by using different types of scientific enquiry to answer questions, including observing changes over a period of time, noticing patterns, grouping and classifying things, carrying out simple comparative tests, and finding things out using secondary sources of information. They also begin to use simple scientific language to talk about what they have found out. Key scientific knowledge will always be taught through the application of working scientifically. Most of the learning takes place through first-hand practical experiences within a thematic approach and learning is evidenced with photo/video evidence on Tapestry alongside evidence in learning books.

<p>In EYFS, Science is taught through the Development Matters area 'Understanding the world- The world'. Each objective is always taught to encourage the 'characteristics of learning'.</p>	<p style="text-align: center;"><i>Term</i> Key Objectives Year One <i>Working Scientifically</i></p> <p style="text-align: center;"><i>Each objective is always taught through a working scientific skill.</i></p> <p style="text-align: center;"><i>Knowledge – Blue</i> <i>Working Scientifically - red</i></p>	<p style="text-align: center;"><i>Term</i> Key Objectives Year Two <i>Working Scientifically</i></p> <p style="text-align: center;"><i>Each objective is always taught through a working scientific skill.</i></p> <p style="text-align: center;"><i>Knowledge – Blue</i> <i>Working Scientifically - red</i></p>
<p>The teaching of Understanding the world- The world' objectives are taught in a 3 stage cycle:</p> <ol style="list-style-type: none"> 1. Directed teaching. 2. Enhanced learning opportunity. 3. Continuous provision opportunities. 	<p><i>Aut 1:</i></p> <p>KO: Animals (Including humans):</p> <ul style="list-style-type: none"> • identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense. <p>WS:</p> <ul style="list-style-type: none"> • identifying and classifying • performing simple tests (senses) 	<p><i>Aut 1:</i></p> <p>KO: Living things and their habitats.</p> <ul style="list-style-type: none"> • identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other • identify and name a variety of plants and animals in their habitats, including micro-habitats <p>WS:</p> <ul style="list-style-type: none"> • identifying and classifying • observing closely, using simple equipment

<p>Children will be given opportunities throughout the year to progress through the areas of learning and development stages e.g. 30-50m, 40-60m etc</p> <p>The Early Learning Goal for this area is:</p> <p>The World:</p> <ul style="list-style-type: none"> • Children know about similarities and differences in relation to places, objects, materials and living things. • They talk about the features of their own immediate environment and how environments might vary from one another. • They make observations of animals and plants and explain why some things occur, and talk about changes. <p>Please see current coverage guide below:</p> <p>Aut 1:</p>	<ul style="list-style-type: none"> • Gathering and recording data <p>Aut 2:</p> <p>KO: Everyday materials:</p> <ul style="list-style-type: none"> • distinguish between an object and the material from which it is made • identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock • describe the simple physical properties of a variety of everyday materials • compare and group together a variety of everyday materials on the basis of their simple physical properties. <p>WS:</p> <ul style="list-style-type: none"> • identifying and classifying • performing simple tests • gathering and recording data to help in answering questions (Simple tests with materials) • using their observations and ideas to suggest answers to questions <p>Spr 1:</p>	<p>Aut 2:</p> <p>KO: Uses of everyday materials:</p> <ul style="list-style-type: none"> • identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses • find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching. <p>WS:</p> <ul style="list-style-type: none"> • observing closely, using simple equipment • performing simple tests • using their observations and ideas to suggest answers to questions • gathering and recording data to help in answering questions <p>Spr 1:</p> <p>KO: Living things and their habitats.</p> <ul style="list-style-type: none"> • describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify and name different sources of food. <p>WS:</p> <ul style="list-style-type: none"> • identifying and classifying • using their observations and ideas to suggest answers to questions • gathering and recording data to help in answering questions
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<p>Longitudinal study of the seasons. Comparing how we look with our peers and the things we can do. Looking at what's around in the environment.</p> <p>Aut 2:</p> <p>Comparing trees and plants and looking at the change in season.</p> <p>Spr 1:</p> <p>New life and how things have changed.</p> <p>Spr 2:</p> <p>Looking at new life and studying and researching eggs and animals that lay eggs.</p> <p>Sum 1:</p> <p>Links to the human impact on the environment and on animals.</p> <p>Sum 2:</p>	<p>KO: Seasonal Changes:</p> <ul style="list-style-type: none"> observe changes across the four seasons observe and describe weather associated with the seasons and how day length varies. <p>WS:</p> <ul style="list-style-type: none"> using their observations and ideas to suggest answers to questions gathering and recording data to help in answering questions <p>Spr 2:</p> <p>KO: Animals (Including humans):</p> <ul style="list-style-type: none"> identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets) <p>WS:</p> <ul style="list-style-type: none"> identifying and classifying asking simple questions and recognising that they can be answered in different ways 	<ul style="list-style-type: none"> asking simple questions and recognising that they can be answered in different ways <p>Spr 2:</p> <p>KO: Plants:</p> <ul style="list-style-type: none"> observe and describe how seeds and bulbs grow into mature plants find out and describe how plants need water, light and a suitable temperature to grow and stay healthy. <p>WS:</p> <ul style="list-style-type: none"> observing closely, using simple equipment using their observations and ideas to suggest answers to questions. gathering and recording data to help in answering questions <p>Sum 1:</p> <p>Animals (including <u>humans</u>)</p> <ul style="list-style-type: none"> notice that animals, including <u>humans</u>, have offspring which grow into adults find out about and describe the basic needs of animals, including <u>humans</u>, for survival (water, food and air) describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene.
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<p>Links to recycling and plastic waste.</p>	<p>Sum 1:</p> <p>KO: Plants:</p> <ul style="list-style-type: none"> • identify and name a variety of common wild and garden plants, including deciduous and evergreen trees • identify and describe the basic structure of a variety of common flowering plants, including trees. <p>WS:</p> <ul style="list-style-type: none"> • observing closely, using simple equipment. • Identifying and classifying. • using their observations and ideas to suggest answers to questions <p>Sum 2:</p> <p>KO: Animals (Including humans):</p> <ul style="list-style-type: none"> • identify and name a variety of common animals that are carnivores, herbivores and omnivores <p>WS:</p> <ul style="list-style-type: none"> • Identifying and classifying. • using their observations and ideas to suggest answers to questions 	<p>WS:</p> <ul style="list-style-type: none"> • identifying and classifying • performing simple tests • observing closely, using simple equipment <p>Sum 2:</p> <p>KO: Living things and <u>Animals</u>:</p> <ul style="list-style-type: none"> • explore and compare the differences between things that are living, dead, and things that have never been alive • notice that <u>animals</u>, including humans, have offspring which grow into adults • find out about and describe the basic needs of <u>animals</u>, including humans, for survival (water, food and air) <p>WS:</p> <ul style="list-style-type: none"> • asking simple questions and recognising that they can be answered in different ways • Identifying and classifying. • using their observations and ideas to suggest answers to questions
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Working Scientifically

During years 1 and 2, pupils should be taught to use the following practical scientific methods, processes and skills through the teaching of the programme of study content (see above):

- asking simple questions and recognising that they can be answered in different ways
- observing closely, using simple equipment
- performing simple tests
- identifying and classifying
- using their observations and ideas to suggest answers to questions
- gathering and recording data to help in answering questions